Abstract of the Disclosure:

A method of decoding a speech signal based on a CELP (Code Excited Linear Prediction) with improvement in degradation of decoded sound quality in a noise period. The method includes the steps of: calculating a norm of an excitation vector for each fixed period in a noise period; smoothing the calculated norm using a norm obtained in a previous period; changing the amplitude of the excitation vector in the period using the calculated norm and the smoothed norm; and driving a synthesizing filter by the excitation vector with the changed amplitude.